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| CEMP-RT Engineer Technical Letter 1110-1-173 | Department of the Army U.S. Army Corps of Engineers Washington, DC 20314-1000 | ETL 1110-1-173 31 May 1996 |
| | Engineering and Design THERMAL DESORPTION | |
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CEMP-RT

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
Washington, D.C. 20314-1000

ETL 1110-1-173

Technical Letter
No. 1110-1-173

31 May 1996

Engineering and Design
THERMAL DESORPTION

1. Purpose. This engineering technical letter (ETL) provides guidance to designers for the determination of applicability of thermal desorption systems and guidance for the preparation of a design to satisfy project requirements.

2. Applicability. This letter applies to HQUSACE elements, major subordinate commands (MSC), districts, laboratories, and field operating activities (FOA) with responsibility for Hazardous, Toxic and Radioactive Wastes (HTRW) projects.

3. References. This ETL should be used in conjunction with design guidance listed below:

- a. ER 1110-345-100 Design Policy for Military Construction.
- b. ER 1110-345-700 Design Analysis.
- c. ER 1110-345-710 Drawings.
- d. ER 1110-345-720 Construction Specifications.

4. General. The attached appendices present information for use in engineering and design of Thermal Desorption Systems.

a. Appendix A - References presents references cited in the text.

b. Appendix B - Design Considerations provides an introduction to the comprehensive overview of design and engineering considerations for thermal desorption.

c. Appendix C - Principles of Operation presents the principles of thermal desorption operation.

d. Appendix D - Predesign identifies thermal desorption predesign activities.

e. Appendix E - Design and Performance Criteria describes design and performance criteria for a thermal desorption system.

f. Appendix F - Treatment System Operations provides a discussion of treatment system operations.

g. Appendix G - Design and Construction Package describes design analysis, plans and specifications for thermal desorption.

h. Appendix H - Closure presents site closure activities.


i. Appendix I - Design Example presents typical calculations required in the design of a remedial design thermal desorption treatment application.

j. Appendix J - Treatability Scope of Work presents the work requirements for treatability studies for thermal desorption application.

5. Action. Each U.S. Army Corps of Engineers design element is responsible for implementation of applicable guidance in the preparation of HTRW designs. This ETL will be considered as the design guidance for thermal desorption of contaminated materials.

FOR THE DIRECTOR OF MILITARY PROGRAMS:

10 Appendices
(see Table of Contents)



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